

REMARKS/ARGUMENTS

Please reconsider the application in view of the above amendments and the following remarks.

Status of the Claims

Claims 1-10 are rejected. Claims 2, 3 and 7 have been cancelled. Claims 1, 4, 6, 8 and 9 have been amended. Claims 1, 4-6 and 8-10 are now pending.

Rejections

Claims 1, 2, 4 and 9 are rejected under 35 USC 102(e) as being anticipated by U.S. Patent No. 6,549,315 to Kakui. Claims 5, 6, 8 and 10 are rejected under 35 USC 103 as being unpatentable over Kakui in view of the article to Ma et al. Claim 3 is rejected under 35 U.S.C. 103 as being unpatentable over Kakui in view of U.S. Publication No. 2001/0014194 to Sasaoka et al. Claim 7 is rejected under 35 USC 103 as being unpatentable over Kakui in view of Ma et al and further in view of Sasaoka et al. Applicant respectfully traverses these rejections.

Applicant has amended independent claims 1 and 6 to incorporate the subject matter of dependent claims 2, 3 and 7 and to recite "multiple Raman pumps, each having a different pump wavelength in a range from about 1480 nm to about 1520 nm." Similarly, independent claim 9 is amended to recite "amplifying each said wavelength using a plurality of Raman pumps, each having a different pump wavelength in a range from about 1480 nm to about 1520 nm." As stated in the present application on page 7, lines 15-24, the use of multiple pumps at different pump wavelengths allows gain to be more evenly distributed over L-band wavelengths.

The Kakui patent, Ma article, and Sasaoka published application all fail to disclose or suggest transmission of optical signals at wavelengths in a range from about 1560 nm to about

1630 nm and Raman amplification using multiple Raman pumps having different wavelengths between about 1480 nm and about 1520 nm. Neither the Kakui patent, nor the Ma article, disclose or suggest the use of Raman amplifiers. The Office Action relies on the Sasoaka published application as teaching Raman amplification. Although FIG. 3 in the Sasoaka published application shows two pump light sources 51, 52 for Raman amplification, both of these light sources 51, 52 provide pump light output at the same wavelength of 1545 nm (see Sasoaka, page 4, paragraph 0049). The Sasoaka published application fails to disclose or suggest Raman amplification using multiple Raman pumps having different wavelengths between about 1480 nm and about 1520 nm.

Even if these references could be combined, the combination would fail to teach all of the claimed limitations in independent claims 1, 6 and 9. If the teachings of the Sasoaka patent application were combined with the teachings of the Kakui patent, the resulting system would, at best, include multiple Raman pumps at the same pumping wavelength.

For this reason, Applicant submits that amended independent claims 1, 6 and 9, and the claims dependent therefrom, are not anticipated by or obvious over the Kakui patent, the Ma article and/or the Sasoaka published application. Accordingly, Applicant requests that the rejections under 35 USC 102 and 35 USC 103 be withdrawn.

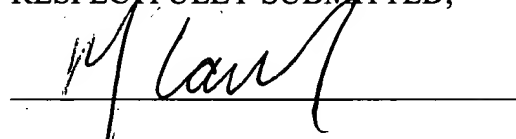
The claims have been shown to be allowable over the prior art. Applicant believes that this paper is responsive to each and every ground of rejection cited by the Examiner in the Office Action dated September 22, 2004, and respectfully requests favorable action in this application. The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

Appln. No. 09/981,364
Amdt. dated December 22, 2004
In response to Office action mailed Sept. 22, 2004
Page 7 of 7

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(Ref. No. 1025).

RESPECTFULLY SUBMITTED,

A handwritten signature in black ink, appearing to read "K. Carroll", is written over a horizontal line.

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